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REPORT ON
TWO SMALL COLLECTIONS
OF REPTILES FROM IRAN

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During a recent trip by road from Greece to Afghanistan, the senior author and his wife made a number of brief collecting stops along the way in Iran. They passed through the country first at the end of June and early July, on the way to Afghanistan, and again during the first part of September, on the return trip.

The route taken from the Turkish border was along the main road via Maku, Khvoy, Marand, Tabriz, Mianeh, Zanjan, Takestan, and Qazvin to Tehran.¹ Most of this was dry, undulating country with sparse, grassy vegetation. Sometimes the hills were bare and deeply eroded, or stony with rock outcrops, similar to the hills in the semi-desert of Afghanistan. The first Iranian reptiles were taken between the Turkish border and Khvoy, at station 24 (just

¹ Spellings of place names conform to those given in the United States Board on Geographic Names, Gazetteer no. 19 (1956).

over the Turkey-Iran border on the road to Tehran; lat. $38^{\circ}50'N.$, long. $45^{\circ}00'E.$; altitude 3,500 ft.; open stony country with sparse vegetation) on bare stony slopes. Near Khvoy, at station 25 (lat. $38^{\circ}40'N.$, long. $45^{\circ}30'E.$, altitude 4,500 ft.; open flat country with little vegetation) animals were found living on more grassy slopes, while at station 26 (30 miles SE. of Tabriz; lat. $37^{\circ}25'N.$, long. $46^{\circ}50'E.$; altitude 6,800 ft.; steep hillside in poorly cultivated country on borders of lake) reptiles were collected in a dry gully adjacent to cultivated field on a hillside above the lake.

The new road from Tehran to Mashhad, which crosses the Alborz Mountains from Rudehen via Ab Ali to Amol, was taken in early July. This route, which follows nearby, but not immediately adjacent to, the Caspian Sea, passes through Sari, Gorgan, Bojnurd, and Quchan before reaching Mashhad. The stretch close to the Caspian Sea is low-lying and felt intensely hot and humid; irrigated rice fields stretch far across the plain on either side of the road. Between Amol and Sari, shortly after sunrise, specimens of both *Natrix n. persica* and *Natrix tessellata* were captured alongside the road; they were released after identification.

The country becomes progressively drier beyond Sari and before leaving the plain and rising to Bojnurd. After leaving Bojnurd and climbing through a well wooded valley, the hills opened out and, shortly after sunrise on an open, dry, grassy plateau, six individuals of *Ophisaurus apodus* were found but were likewise released after identification.

On the return trip from Mashhad to Tehran, during the first few days of September, the senior author and his wife traveled the more southerly route, which follows along the northern edge of the Great Salt Desert (Dasht-e Kavir) and south of the Alborz Mountains. The road passes through Neyshabur, Sabzevar, Shahrud, and Semnan. Much of the country through which this road passes is flat, dry, and stony. Well irrigated, cultivated fields are often seen in the vicinity of the frequent towns and villages. Collection station 27 (20 miles E. of Tehran; lat. $35^{\circ}45'N.$, long. $51^{\circ}40'E.$; altitude 4,000 ft.; broad, open plain at foot of mountains), and station 28 (near Sabzevar; lat. $36^{\circ}15'N.$, long. $57^{\circ}30'E.$, altitude 4,600-3,300 ft.; parched, open country with prickly shrubs and occasional rock piles by road) were situated along this road.

Between Mashhad and Tayyebat and as far as the Iran-Afghanistan frontier, the country is flat and open; it is crossed by numbers of dry water courses and vegetation is sparse. Villages are more isolated, too. Collection station 29 (lat. $35^{\circ}10'N.$, long. $60^{\circ}20'E.$ to lat. $35^{\circ}45'N.$, long. $59^{\circ}50'E.$; altitude 4,250-4,900 ft.; dry, open country with occasional rock piles and low,

prickly bushes) was between Torbat-e Jam and Fariman, and station 30 (Tay-yebat, lat. 34°30'N., long. 61°45'E.; altitude 3,000 ft.; flat, barren country with very sparse vegetation) about 10 miles from the Iran-Afghanistan frontier. In the vicinity of this last station, the terrain was more earthy than stony.

Only a few temperature records were taken during the drive through Iran, but during the times the senior author and his wife were there it was generally hot, though probably not as hot as they experienced in southern Afghanistan in mid-July and late August. During the two-day drive along the Caspian Sea humidity was high, the sky partly cloudy, and there were rain showers. At Amol, at 18:30 hours on July 5, a temperature of 27.0°C. was recorded. Two hours earlier, at the crest of the 9,300-foot pass from Tehran, a similar temperature was noted. At station 26, at an altitude of 7000 feet, where *Lacerta brandti* was taken on July 1, the temperature was 25.0°C. at 16:30 hours immediately following a brief rain. Additional temperature records are given in table 1.

TABLE I. Summary of incidental temperature records taken at three Iranian localities.

DATE	LOCALITY	ALTITUDE (FEET)	TIME ²	AIR ³	GROUND ³
Sept. 1	Torbat-e Jam	4,000	05:45 ⁴	17.0	17.0
			10:00	29.0	48.0
	Neyshabur	4,000	18:00 ⁵	29.0	27.0
			21:30	23.5	---
Sept. 2	Sabzevar	4,600	06:00 ⁴	16.0	16.0
			09:15	27.5	43.5
	"	3,300	12:00	39.0	59.0
		2,900	15:30	31.0	38.0

² Time based on 24 hour count.

³ Air and ground temperatures measured in degrees C.

⁴ Sunrise.

⁵ Sunset.

In addition to the specimens collected by the two senior authors, this report includes a small collection assembled by Mr. Howard Stutz in Iran in 1961. We are indebted to Dr. Wilmer Tanner of Brigham Young University for permission to include this latter collection in our report.

The following abbreviation symbols are used: BYU - Brigham Young University; CAS - California Academy of Sciences; RJC - Richard J. Clark.

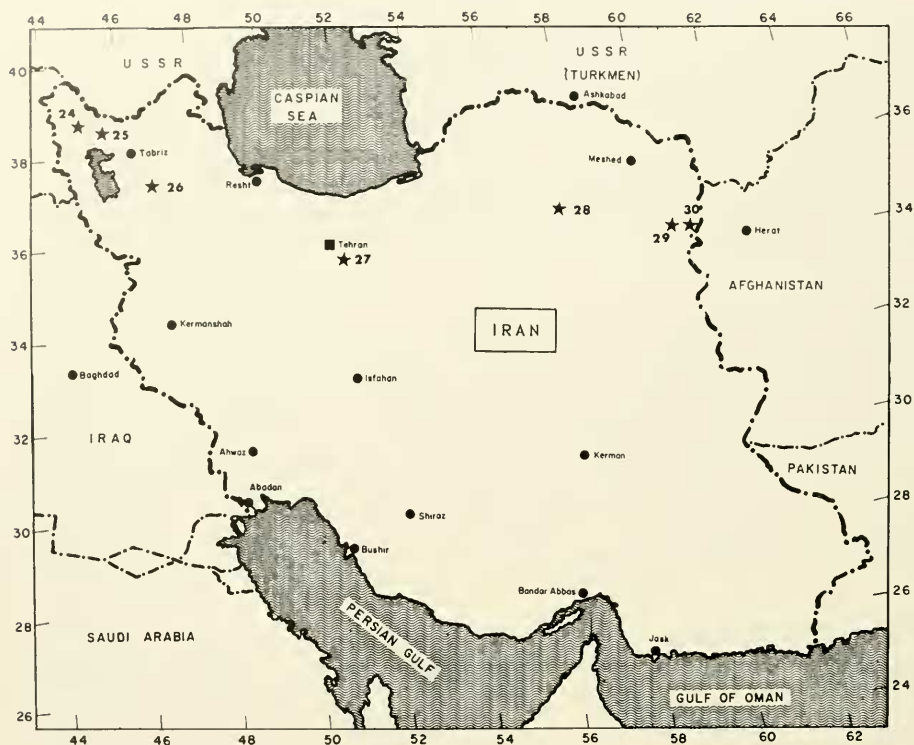


Fig. 1. Map of Iran showing collecting stations (see text for description of sites).

NOTES ON COLLECTIONS

Agama agilis Olivier.

MATERIAL EXAMINED (9). CAS 96270, station 30, July 7, 1964; RJC 226-229, station 28, September 2, 1964; RJC 231, station 29, September 1, 1964; RJC 258, station 27, September 4, 1964; BYU 20953-20954, Esfahan, April 27, 1961.

REMARKS. Specimens collected at station 28 were sluggish at 09:15 hours when the air temperature was 27.5° and the ground 43.5°. At 12:00 they were active, the air temperature 39.0°, the ground 59.0°.

These lizards were collected on or near the ground, on low piles of stones and under bushes.

One of the specimens from Esfahan has leaves in the stomach. There are eggs in the ovaries of this specimen, collected in late April.

The systematic status of the populations of this lizard in Iran requires further careful study.

Agama caucasica (Eichwald).

MATERIAL EXAMINED (8). CAS 96258-96259, RJC 3, station 24, June 30, 1964; RJC 280-282, station 24, September 11, 1964; BYU 20966, 20 miles north of Tehran, May 7, 1961; BYU 20972, Babol, 1961.

REMARKS. These lizards were collected close to the road in open, rugged country with occasional rocky outcrops. At the end of June only adults were observed, but in early September hatchling and half-grown individuals were seen as well as adults. On the latter occasion the lizards were locally very abundant, and when disturbed took shelter in crevices and under boulders, several occupying the same retreat. They were easier to capture than those taken by the senior authors at Ghazni, Afghanistan, the terrain being less rocky, and the lizards more easily raised well clear of the rock surface. Young lizards were found under small stones on flat ground at 12:00 hours.

In life these animals were fawn above, with black reticulations on back and sides. Transverse orange markings, or black-ringed orange spots on flanks, occasionally orange bars on neck and tail. Belly sandy, suffused with orange in those collected in September. Throat immaculate or with gray streaks. Considerable individual difference in color pattern.

Agama erythrogastra (Nikolsky).

MATERIAL EXAMINED (2). CAS 98098, RJC 232, Station 29, September 1, 1964.

REMARKS. This narrowly distributed species is rare in collections. It is known only from northeastern Iran in the general area of Mashhad, and southeastern Turkmen. Guibé's (1957) *Agama caucasica mucronata* is clearly a synonym of this species.

The two specimens collected were occupying man-made rockpiles by the road. There were no natural rock formations, the terrain being otherwise flat, bare, and stony. *Agama agilis* was found at the same locality, but the micro-habitats never overlapped, *A. agilis* here preferring earthy banks and prickly bushes. When approached, specimens of *A. erythrogastra* invariably took cover under the rocks on which they were basking. One of the two specimens taken at station 29 was collected at 10:00 hours when the air temperature was 29.0° and the ground 48.0°C. The second individual was collected in the open at 13:00 hours, air temperature 28.0°, ground temperature 40.0°C.

In life the lizards were light olive to yellow-gray above, spotted and reticulated with black, tail banded with black. The venter was suffused with pink or orange, including the ventral surface of tail. The throat was pale yellow with gray mottlings.

Agama nupta De Filippi.

MATERIAL EXAMINED (1). BYU 20951, Qom, 4,000 feet elevation, May 4, 1961.

Phrynocephalus helioscopus (Pallas).

MATERIAL EXAMINED (4). CAS 96260-96261, 96264, RJC 6, station 25, June 30, 1964.

REMARKS. These lizards were all taken at about 16:00 hours. They were found predominantly near low prickly bushes under which they took cover when disturbed, though often running nimbly across short stretches of open ground from bush to bush. When motionless their squat, plump bodies blended admirably with their environment.

The females have ovarian eggs, the largest 2 mm. in diameter; the oviducts are enlarged.

Stomachs contain insects, mostly beetles and ants.

In life the lizards were fawn or slate-gray above with a mottled pattern of pink, blue-gray, and brown, dark bars on back, continuing onto tail. Venter dirty white, throat with faint gray markings. The tail has dark transverse bars dorsally, white below. Considerable individual variation in color pattern.

The enlarged dorsal scales are more prominent in the females examined than in the males.

Phrynocephalus scutellatus (Olivier).

MATERIAL EXAMINED (2). BYU 20952, Esfahan, 6,800 feet elevation, April 27, 1961; BYU 20960, Abadeh, April 29, 1961.

REMARKS. BYU 20952 is from near the type locality.

Uromastix loricatus (Blanford).

MATERIAL EXAMINED (1). BYU 20965, Persian Gulf (coast?), 1961.

Agamura persica (Duméril).

MATERIAL EXAMINED (1). BYU 20959, Abadeh, April 29, 1961.

REMARKS. This unusually large female (76 mm. from snout to vent) has lost the tail, apparently in capture. The break occurs between two caudal vertebrae. In other Iranian specimens the tail has not been observed to be fragile, nor has tail regeneration been reported in this species.

There is a single egg, 6 mm. long in each oviduct, indicating that eggs are laid in late April and May in this region.

There is a (lycosid?) spider in the stomach.

The two small geckoes referred to this species by Leviton, 1959, do not belong to the genus *Agamura* and require further study.

***Eremias guttulata watsonana* Stoliczka**

MATERIAL EXAMINED (5). CAS 96274, station 30, July 7, 1964; BYU 20940, between Tehran and Karaj, 3,800 feet elevation, April 22, 1961; BYU 20955, Esfahan, 1961; BYU 20961-20962, Abadeh, April 29, 1961.

REMARKS. These lizards were active in the vicinity of Tayyebat in the morning (07:15 - 08:30 hours) when the air temperature was 35°C.

***Eremias pleskei* Bedriaga.**

MATERIAL EXAMINED (1). CAS 96263, station 24, June 30, 1964.

REMARKS. This is apparently the second Iranian record of this lacertid, known only from the Armenian Plateau in the USSR and from Azerbaijan in Iran. The previous record in Iran was that of Lanz (1928) who recorded it from the valley of the Talkeh Rud, near Tabriz.

A few of these lacertids were seen at 13:30 hours in the same general area as *Agama caucasica*, keeping more to the open bare ground and relying on their speed and activity to avoid capture. They did not retreat under stones, nor into rock crevices, but when hard pressed would take cover under the scattered low bushes.

Eremias pleskei has been regarded (Nikolsky, 1915) as a subspecies of *E. fasciata*, but Boulenger (1921) has pointed out that the wide separation of the series of femoral pores justifies its recognition as a distinct species. In addition, *E. pleskei* has teeth on the pterygoid, while according to Blanford (1876) the types of *E. fasciata* do not.

In this specimen the two large supraoculars are completely separated from the frontal by a series of granules. There are five longitudinal dark lines on the body broader than the interspaces, the vertebral line bifurcating on the nape. In addition there is on each flank a very faint gray line between the fore and hind limbs. This Iranian specimen differs from two Armenian (USSR) specimens examined in having five rather than six supralabials anterior to the subocular, and in having the fifth chin shield in contact with the sublabials. The anterior loreal is longitudinally divided on the left side of the head. The two series of femoral pores are separated by eight scales.

***Eremias velox persica* Blanford.**

MATERIAL EXAMINED (3). BYU 20970-20971, Arak, May 3, 1961; BYU 20956, Esfahan, 6,800 feet elevation, April 27, 1961.

REMARKS. Stomach contents of the Esfahan specimens include beetles, beetle larvae, ants, aphids, hemipterans, sand-dwelling roaches, grasshoppers, and spiders.

Lacerta brandti De Filippi.

MATERIAL EXAMINED (8). CAS 96265-96269, RJC 12-14, station 26, July 1, 1964.

REMARKS. These lizards were congregated in a dry stream gully, on the edge of a field on a steep hillside above a lake. They were numerous and active, running swiftly across the open fields from bush to bush, or hiding beneath small boulders in the gully. More were found by turning over stones. The lizards were observed at 16:30 hours, when the temperature was 25.0°C.

Two of the four females have eggs in the oviducts, the largest 14 mm. long. The other two contain ovarian eggs.

In this series there are 49-55 dorsals across the middle of the body, 28-32 transverse series of ventral plates, 8-11 plates in the collar, 24-30 gulars, 16-19 femoral pores, and 27-33 double lamellae under the fourth toe.

In life these lacertids were fawn, gray, or brown above, often tinged with green anteriorly. A light stripe, occasionally green anteriorly, from parietal to hind limb, breaking up posteriorly into discrete white spots, or broken up throughout its length. A second light stripe from aural aperture along flank, continuing onto tail. Flanks variously spotted with black and white. Sides of neck green. A few blue spots in axilla. Small black spots down either side of back tending to form a recitulum. A large black-edged ocellus above axil. Belly yellow-green or green, throat and chin blue, vent, hindlimbs, and tail often pink ventrally; outer ventrals with blue or black spots. Hindlimbs gray or fawn above, flecked with black and white.

Lacerta saxicola defilippii (Camerano).

MATERIAL EXAMINED (4). BYU 20947-20950, Tehran, 8,000 feet elevation, May 7, 1961.

REMARKS. These lizards probably were collected in the Alborz Mountains north of the city of Tehran.

BYU 20948 contains ovarian eggs; the oviducts are enlarged.

BYU 20947 has one extra shield between the prefrontals, BYU 20948 having two such shields. The frontal is longitudinally and irregularly divided in BYU 20947, and the masseteric shield is absent. This latter shield is highly variable in the material examined.

The entire ventral surface is suffused with bluish-green, the dorsum predominantly olive-brown in these specimens.

Lacerta trilineata media Lantz and Cyren.

MATERIAL EXAMINED (1). BYU 20968 "Iran" (no precise locality given by collector), 1961.

REMARKS. This lizard is known in Iran from Azerbaijan. There is also a record from northwest of Esfahan (Boulenger, 1920) which requires confirmation.

The specimen is a female containing ovarian eggs of various sizes, the largest 5 mm. in diameter. The date of collection is not known, however.

Lacerta trilineata media is difficult to separate from *Lacerta strigata* in Iran, although differences are apparently more pronounced elsewhere in their ranges (Peters, 1964). Iranian specimens of *L. t. media* have the row of femoral pores failing to reach the knee and have a greater number of temporal scales (more than 20), while in *L. strigata* the femoral pores reach the knee and the temporal scales are larger (less than 20).

Ophisops elegans elegans Ménétries.

MATERIAL EXAMINED (11). CAS 96262, station 25, June 30, 1964; BYU 20941-20946, Karaj, 3,800 feet elevation, April 27, 1961; BYU 20957-20958, Esfahan, 6,800 feet elevation, April 27, 1961; BYU 20963-20964, Abadeh, April 29, 1961.

REMARKS. The specimens from near Khvoy were collected at the same time and place as the *Phrynocephalus helioscopus*.

BYU 20958 and CAS 96262 each have an egg in the oviduct, measuring 4 mm. and 6.5 mm. respectively.

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